ONE GOOD PRODUCT... TWO GOOD REASONS. **LESCO Sulfur-Coated Fertilizer Plus Oftanol®**

One application eliminates white grubs, chinchbugs, sod webworms, mole crickets and other common insects - while providing a safe, long-lasting, slow-release fertilization. Good for the turf and good for you.



LESCO Fertilizer Plus Oftanol® is available in the following formulations: LESCO 30-3-8 plus 1.5% Oftanol® . LESCO 24-4-12 plus 1.5% Oftanol® . LESCO 24-4-8 plus 1.5% Oftanol® (specially formulated with iron and manganese for southern turfgrasses). Straight controls also available: LESCO Oftanol® 1.5% Granular • Oftanol® 5% Granular Oftanol® 2 Insecticide. Oftanol® is a registered trademark of the Parent Company of Farbenfabriken Bayer GmbH, Leverkusen. Distributed by Mobay Chemical Company.



Call Barb to order.

(800) 321-5325 (800) 362-7413 Nationwide Ohio



Lesco, Inc., 20005 Lake Road Rocky River, Ohio 44116 Circle No. 130 on Reader Inquiry Card Rubigan E.P.A. Experimental Use Permit No. 1471-E.U.P.-50.

Times are tough for unwanted fungi when Rubigan invades their turf. Dollar spot (even fungicide resistant strains), large brown patch*, fusarium blight, stripe smut and pink or gray snow mold—these troublemakers get their walking papers, starting the day you hire Rubigan.

Prevents and cures.

In addition to the flexibility Rubigan gives you to manage a disease *prevention* program, it provides effective *curative* action on dollar spot when applied at slightly higher rates.

Rapid leaf penetration.

As a foliar-applied, quick-penetrating, locally systemic fungicide, Rubigan is absorbed almost immediately into leaf tissue. So it's not susceptible to washoff by rainfall or irrigation once the spray has dried on the leaf. While the spray is drying, the active Rubigan ingredient goes to work inside the plant to start protecting immediately against disease.

No resistance worries.

The bad news for common and susceptible turf fungi started years ago with successful Rubigan E.U.P. usage throughout the United States. Susceptible fungi commonly found in turf just plain haven't been able to develop

*See label for tank mixes under moderate to heavy disease pressure.

resistance to Rubigan. The reason is the mode of action Rubigan has—involving three or more sites of inhibition. As a multi-site inhibitor, Rubigan simply attacks fungi at many different sites with a real tough active ingredient. This eases constant worries about resistance.

Longer-lasting control.

Because Rubigan is a very active, concentrated fungicide with long-lasting residual action (up to 28 days on dollar spot), it allows longer intervals between sprayings. So you can reduce application trips, save on fuel and labor. Lower use rates also mean less storage and lower handling costs

Excellent turfgrass safety.

Rubigan is safe on all commonly grown perennial turfgrass species when used at recommended rates. Fact is, several university turfgrass researchers will tell you Rubigan is as good for your turf as it is devastating for the five major turf diseases it controls. To learn more on how Rubigan can be

a cost-efficient cornerstone in building a sound turf disease prevention program, contact your distributor. Ask also about Balan, Surflan and Treflan for dependable weed control in turf and ornamental plantings. Or write: Elanco Products Company, 740 S. Alabama St., Dept. E-455, Indianapolis, IN 46285.

Poa annua growth regulating effect: Applications of Rubigan to turfgrass areas containing Poa annua (annual bluegrass) have demonstrated a growth regulating effect on this species. Under certain environmental conditions and cultural practices, Rubigan applications may gradually reduce Poa annua populations in treated areas. Users desiring more information regarding this aspect of activity from Rubigan should obtain the Rubigan Product Information Bulletin on Poa annua from Elanco Products Company or their Rubigan distributors



For best results always read and follow the label directions.

prior to use. Do not use Rubigan on turfgrass areas containing *Poa annua* until this Product Information Bulletin is read and understood.

UNEMPL

OFFICE

Precautions: Applications of Rubigan to turfgrass areas containing *Poa annua* (annual bluegrass) may result in the gradual reduction of this species from the turfgrass area. Cumulative dosages of 5 pounds of Rubigan 50W per acre or 2 ounces per 1,000 sq. ft. are usually necessary for this response to occur. If such a reduction or loss of *Poa annua* is not acceptable to the user, Rubigan can be used at the minimal label rate (0.2 oz. 50W/1,000 sq. ft.) or in alternating application with contact type fungicides.

Elanco Products Company A Division of Eli Lilly and Company + Indianapolis, IN 46285

Turf products with benefits that make the difference.

Rubigan® (fenarimol, Elanco Products Company)

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Always First Always Outlasts

35 Years ...

Est. 1949

Competition is the name of the game ... and Hoffco is leading with the competitive edge GT160T.

the GT160T is ... Small in size Small in price Big on performance.

Hoffco knows how to build monofilament trimmers.

 Foolproof starting with solid state ignition

HOFFCO has the

- Long wearing auto-centrifugal clutch
- Patented drive shaft system
- Automatic "tap" feed monofilament head for ease and convenience
- Dependable 15.4 cc engine

Design features that you expect to pay more for are standard with Hoffco.



Remember...we don't come apart when you need parts...we deliver. Our Parts and Service Program is a unique part of Hoffco's total selling program ...

it works with you and for you.

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GT160T IS NOT DESIGNED FOR USE WITH BLADES

For more information:

HOFFCO INC., Dept. WTT4-584 358 N.W. "F" St., Richmond, IN 47374 Telex 20212

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even within a city.

Symptoms of injury include turf under the dripline of trees and in open areas having a burnt orange color. When symptoms are seen, numerous aphids (40 or more) may be seen on a single grass blade. Close examination of damaged turf is necessary because the aphids are small. If left untreated, a heavy infestation can kill the turf. Little damage from this pest was seen in 1983.

Greenbug infestations may be controlled with liquid treatments of Dursban® (1 lb. AI/acre) or Diazinon (2.5 lbs. AI/acre). If reinfestation occurs following treatment with these insecticides. Orthene (acephate) at labelled rates has been effective.

FALL (Sept.-Oct.)

Chinchbug—In the northern U.S., the second generation of chinchbug is at peak numbers in September. Nymphs complete their development to adults in late October. Most chinchbugs overwinter in the turf, but some to protected areas before winter.

Generally, infestation levels at this time are not high enough to warrant the use of insecticides. Early fall rains and infection by a parasitic fungus usually provides sufficient suppression.

Billbug-During September, billbug adults that developed from summer larvae are often seen wandering about on sidewalks, driveways, or other paved surfaces. Before winter, these adults seek shelter in thatch, along sidewalk edges, or near foundations and overwinter there. However, many, if not most, overwinter in the turf.

Grubs-Most species of grubs are in the third of their three stages of development and are feeding actively. When soil temperatures decrease in late October the larvae burrow deep into the soil to overwinter. Severely cold winters have little effect on survival.

Treatments of existing grub infestations can be accomplished as late as early- to mid-September

What makes the Cushman Turf-Care System worth the investment:

Aerating, hauling, dumping, spraying, seeding, spreading and top dressing — one vehicle does the work of a fleet of machines.

The exclusive Cushman pin disconnect system lets you attach and remove accessories in minutes.



The economics behind your decision to invest in the Cushman Turf-Care System are hard to argue with:

Here is a single vehicle that can do the work of a half dozen machines, at a fraction of the cost.

Here is a complete set of turf-care accessories that can be attached or removed in minutes.

> Here is a groundskeeping system that's so simple, and so well-crafted, your maintenance and repair time will become practically non-

existent. Economics aside, though, there is an even stronger reason to invest in the Cushman System. Results.

The Turf-Truckster[™]. Powered by a rugged 18 hp air-

cooled engine, the Cushman Turf-



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Truckster has the stamina to survive years of constant use. A 3-speed syncromesh transmis-

sion, hydraulic brakes, heavy-duty suspension and a ³/₄-ton payload capacity are all standard. And you can choose between a 3-wheel or

4-wheel design.

By itself, the Turf-Truckster is the industry's state-of-the-art work vehicle.

But team it up with any of the following accessories, and you have the makings of an efficient, economical turf-care system.

The aerators.

Because you have two types of turf to aerate, Cushman makes two aerator attachments for your Turf-Truckster.

The Greensaver[®] is ideal for greens and other delicate areas. Interchangeable aerating drums let you select the precise degree of aeration needed — $\frac{1}{2}$ " cores for fast-growth seasons,

> 3/8" cores for slow-growth months, and deep-slicing tines for summer hot

> > spells. For the rest of your grounds, simply attach the Quick Aerator to your Turf-Truckster, It offers

aeration tines as the Greensaver, but covers a wide 46" swath.

The dump boxes.

To haul fertilizer, dirt, sand and other supplies, choose our Short Box attachment. It handles 1500-lb. payloads, sits low to the ground for easy loading and can be hydraulically dumped right from / the driver's seat.

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But for maximum versatility, you may prefer our Flatbed/Box attachment. It does everything the Short Box does, but converts to a flatbed carrier just by removing the sides and tailgate.

The sprayer.

Turf pros swear by this as the finest spraying machine they've ever used. And it's no wonder when you consider all you get:

Uniform spraying controlled by your vehicle's ground speed governor; a PTO-operated centrifugal pump; and your choice of either a 100-gal. tank with a 15' rear boom, or our new 150-gal. tank with a 21' rear boom.

Plus, you can add a versatile handgun attachment for fogging bushes and spraying trees.

The spreader/seeder.

Mounted on either side of the two Cushman dump boxes, the Spreader/ Seeder attachment actually outperforms units costing much more.

The spreading rate is regulated by your Turf-Truckster's ground speed governor. Even over irregular terrain, you get uniform spreading.

The corrosion-resistant hopper holds up to 300 pounds of material, and spreads it evenly across a swath up to 40 feet.

The top dresser.

Just 3 pins connect the Top Dresser to your Turf-Truckster chassis, and you're ready to top dress up to 220 feet per minute.

Everything from rock salt to powdered fertilizer can be uniformly spread across a 311/2" swath.

A free demonstration.

For a free demonstration of the



Cushman Turf System, call Toll Free: **1-800-228-4444** or write: 5233 Cushman, P.O. Box 82409, Lincoln, NE 68501.

PORTABLE REELS FOR WATERING, SPRAYING, SPRAYING, FERTILIZING, EDGING, EDGING, TRIMMING

Hannay Reels on Wheels take hose or power cable straight to the job and back.



No hassle, no hauling, no dragging, no unkinking, no untangling, no piling, and no time-consuming mess.

For more efficient grounds maintenance, specify Hannay Reels for portable hose or cable handling.



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TURF

Reaction of Kentucky Bluegrass Varieties and Selections to Injury by the Bluegrass Billbug.

Variety or Selection	Percent of Turfgrass Damage	Number of billbug Larvae per sq. ft.
BA63-188	13.3a*	
Midnight	14.0a	
F-1757	24.7a-b	12.3*
F-353	26.7a-b	13.0b
EVB 3275	27.3a-b	
Kenblue	27.4a-b	1.3a
Eclipse	30.3a-c	
America	31.7a-c	
Majestic	37.7b-d	
Princeton P-104	39.1b-d	14.8b
Admiral	43.3b-е	
Adelphi	49.0c-f	
Somerset	53.3d-g	
Rugby	54.2d-g	
Fylking	57.2d-h	
Bristol	62.7e-i	
Touchdown	63.33-i	
Enmundi	63.3e-i	
Plush	64.3e-i	
Baron	67.8f-J	51.0c
Bonnieblue	69.3f-j	
Birka	71.0g-j	
Merion	76.0h-j	57.8c
A-34	78.2i-j	
Victa	79.5i-j	
Nugget	82.4i-j	60.3c
Cheri	83.5i-j	45.3c
K3-182	87.0j	18.5b
Ram I	89.3j	

"Means values: N = 3 for turfgrass damage and N = 6 for billbug counts. Means not followed by the same letter are significantly different at 5% level by Duncan's multiple range test.

Test results from one year's data.

using standard grub insecticides and sufficient (one-half-inch or more) irrigation. Treatment after this time may or may not kill the grubs before they move deeper into the soil to overwinter. Whenever treatment is applied the grubs should be in the top one to two inches of soil.

Black Turfgrass Ataenius—By September, adults of the current generation begin to fly into protected areas, such as golf course roughs, to overwinter. Larvae that have not completed development to adults before frost are killed.

Mole Crickets-Mole cricket

nymphs develop through the summer and most become adults by fall. However, recent studies in Florida show some egg laying continues throughout the year.

Greenbug—Severe infestations of greenbug have been known to occur as late as the first week of December. Areas having a history of infestation should be reexamined when mild temperatures extend late into the fall. Heavily-infested turf will not survive through winter.

Late fall infestations may be controlled with the same insecticides used to control the pest during the summer. WT&T

Put Out Pythium, Fast!

Break Out Terraneb SP.



erraneb SP Turf Fungicide gives you fast, effective control of pythium without burning your turf.

You'll get proven, consistent performance with Terraneb SP at lower use-rates than competitive products.

With Terraneb SP on hand you know you'll be ready to move fast against fast-spreading pythium.

> TIME TESTED TERRANEB SP TURF FUNGICIDE

For further information write,



KINCAID ENTERPRISES, INC P.O. Box 671 Nitro, WV 25143

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or see your local distributor.

How many turf in this

Here's a clue. D.z.n Diazinon controls every insect you see here, from the root-eating white grub to the juice-sucking chinch bug. In fact, D.z.n Diazinon has the biggest label of any turf insecticide. And that makes it the perfect choice for broad spectrum control in both commercial and residential turf.

Need another clue? D.z.n controls damaging worms including

insects are hiding picture?

cutworms, sod webworms and armyworms. Plus it takes care of nuisance pests like ants, fleas and chiggers.

We've mentioned 8 species on the label but that's not even half.

Keep counting. And when you place your next insecticide order, ask your supplier for the biggest label in the business – D·z·n Diazinon. PS: You'll find the answer below. CIBA-GEIGY

Answer: D.z.n Diazinon controls all twenty-three insects seen here.

LANDSCAPE

by Dr. R.E. Partyka



Norway maple aphids.

nsect damage to woody orna-mentals can vary from insignificant to widespread destruction that eventually results in death.

There are many ornamental plants, each with an assortment of insects attacking it. This results in a relatively large number of insect pests that can be destructive to ornamentals. Fortunately, all of these insect pests do not appear at one time or in one year, since many of them are cyclic.

Insect control is dependent on early recognition of the specific insect, its significance in the area, its life cycle or biology, a practical approach to control if needed, and materials to use on the pest and their effect on the environment.

Insect damage may be severe during one season and not others. You might consider what will happen in the future if nothing is done? How does the client view



Vermeer Tree Spades

Powerful, hydraulicallycontrolled, tree-moving machines that transplant and package trees/shrubs . in minutes!

- 2-8" diameter trees
- One man operation
- Short tower design for greater access
- Fully curved steel spade

Circle No. 160



Vermeer TS-32 Tree Spade

Designed specifically for tree packaging operations. Simple three-spade system forms neat, clean "tree package" for easy handling/burlaping/balling.

- Adapts to both loader and tractor (with Cat. II, 3-pt. hitch)
- Short tower design with powerful chain reduction drive system







Vermeer Handle-Bar **Stump Cutters**

Finest, self-propelled handlebar unit in the field. Outstanding leverage and conto 30" wide, down to 8" deep without deep, without repositioning.

- Compact. Squeezes thru ordinary yard gate.
- Rugged 18 hp engine. Easy to operate ... to maneuver ... to transport.
- Circle No. 162

Vermeer **Stump Cutters**

Fastest, most cost-efficient, most effective way to remove dangerous, ugly tree stumps! Hydraulically cuts 'em out in minutes.

- Simple one-man operation. Easy to maintain. Four different sizes
- from economical, self-propelled handle bar-style models to powerful commercial units

Circle No. 163



Vermeer 1600 Brush Chipper

Toughest, most powerful brush chipper on the street today. Built for high production volume with solid, heavy-duty construct tion throughout.

- Instant Feed stop. Cuts off access to rotor in .5 of a second.
- Convenient sales and service centers all over North America

Circle No. 164